ABSTRACT OF THE DISCLOSURE

A wire winding machine includes two mandrels for winding wire alternately thereon. A traverse positions wire axially along each mandrel, and moves in an arcuate path to position wire adjacent one or the other mandrel. A single transfer arm transfers wire from a wound to an unwound mandrel by extending a wire guide adjacent the wound mandrel, retracting the wire guide to engage the wire, rotating to position the wire adjacent the wound mandrel, and extending to guide the wire into a clamping and cutting mechanism. The mechanism clamps and cuts the wire in response to the mandrel end cap being placed into position. The wire winding machine includes a portable operator console, and a network interface. A wire tension control unit includes a radiated signal source and detector to detect movement of a moveable pulley assembly relative to a fixed pulley assembly to control the supply of wire.